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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Deployment of Wireline Services Offering	)	CC Docket No. 98-147
Advanced Telecommunications Capability	)	
	)	

COMMENTS OF MCI WORLDCOM, INC.

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Dated: June 15, 1999

EXECUTIVE SUMMARY

The Commission's spectrum compatibility and spectrum management policies principally focus upon fostering competitive deployment of innovative technologies and ensuring the quality and reliability of the public telephone network. Resolution of these critical issues will ensure competitive provision of advanced telecommunications services.

The Commission has authority, pursuant to sections 256(a)(1) and 256(a)(2), to direct industry bodies to engage in the process of developing spectrum compatibility and management policies, and to mandate that industry bodies adhere to requirements the Commission established for the functioning of such bodies. Specifically, the Commission should establish general principles to govern spectrum compatibility and management policies and mandate the establishment of a neutral third party administrator, through industry fora, for the implementation of those principles.

Regarding Power Spectral Density (PSD), T1E1.4 is the one forum for developing future PSD masks. However, since T1E1/ANSI has not standardized the full range of xDSL technologies, ITU's PSDs should be recognized as well as those of T1E1. Specifically, the forum should consist of representatives from the Commission, state commissions, software providers, manufacturers and equipment vendors, and incumbent and competitive LECs. However, PSD definition will not resolve the issue of the quantities of different PSD types that can be deployed within a particular binder group. Therefore, binder group management should be resolved by the industry standards bodies.

A process for phasing out technologies that cause interference should be established. To

this end, the Commission should establish a grandfathering process, with a phase-out period of three to five years, for older or existing interfering technologies. Carriers should be required to replace AMI T1 with new technologies that create less interference.

MCI WorldCom supports the Commission's view that line sharing, which allows competitive LECs to offer data services over an unbundled copper wire, should be permitted. Competitive LECs need line sharing as an unbundled network element or access service to be able to compete with incumbent LECs' xDSL services and offer the public a choice of provider. Without the unbundling of line sharing, competitive LECs are significantly disadvantaged because incumbent LECs require competitive LECs to lease an additional loop, which increases competitive LECs' costs and discourages market entry and competition. Customers would ultimately choose the cheaper monopoly over the new, but more expensive, competitors. Any technical and operational issues (such as billing, maintenance and customer service) can be resolved in same ways traditional local services are resolved. Rules implementing cost allocation should be non-discriminatorily applied.

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MCI WorldCom, Inc. (MCI WorldCom), by its attorneys, hereby submits its comments in response to the Commission's First Report and Order and Further Notice of Proposed Rulemaking.[1] MCI WorldCom supports the Commission's proposals to resolve long-term spectrum compatibility, spectrum management and line sharing issues to facilitate the deployment of local services. We agree that resolution of these critical and pressing issues will further competition in the provision of traditional local and advanced telecommunications services by allowing competitive local exchange carriers (LECs) to more effectively compete against incumbent LECs.

I. SPECIFIC SPECTRUM COMPATIBILITY AND MANAGEMENT POLICIES SHOULD BE ESTABLISHED BY INDUSTRY CONSENSUS WITH EXPLICIT COMMISSION DIRECTION AND OVERSIGHT

As the Commission noted in the Further Notice, clear spectral compatibility standards and spectrum management rules and practices are necessary both to foster competitive deployment of innovative technologies and to ensure the quality and reliability of the public

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[1] Deployment of Wireline Service Offering Advanced Telecommunications Capability, *First Report and Order and Further Notice of Proposed Rulemaking*, FCC 99-48 CC Docket No. 98-147 (rel. March 31, 1999) (Further Notice).

telephone network.[2] To that end, MCI WorldCom wholeheartedly agrees, as this Commission has surmised, that incumbent LECs should not be permitted to exercise undue discretion in resolving interference issues so that they, in effect, determine which technologies are ultimately deployed, and under what circumstances. To counterbalance any potential efforts by a particular industry segment to dominate standards bodies, the Commission must play a meaningful and proactive role in fostering timely, fair and open development of standards for current and future technologies. In particular, the Commission should adopt an aggressive approach and take immediate steps to establish general principles to govern spectrum compatibility and management policies. Moreover, it should mandate the establishment of a neutral third party administrator, through industry fora, to oversee the implementation and enforcement of those principles.

In order to foster local market competition in the provision of traditional and advanced local services, it is critical that all industry participants be involved in the process of resolving interference issues. In the end, resolution of these critical issues will determine the technologies which are deployed and the time frame in which consumers will benefit from the creation and deployment of new and innovative services. The successful transition from a monopoly-provided public telephone network to a competitively-provided but seamlessly interconnected public telephone network, requires cooperation by all LECs and industry participants. In this new shared network environment, the incumbent LECs cannot be allowed to utilize their existing market power to manifest anticompetitive behavior. We believe that such behavior will be

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[2] Id., ¶ 78.

particularly acute when examining the discrimination in the administration of network information and functions with which all carriers must comply for purposes of interconnecting with the incumbents. For example, not surprisingly, several of the incumbent LECs are already imposing loop specifications for the deployment of xDSL services that are considerably more restrictive than the industry defined specifications.[3] We can only expect that this type of obstructive behavior will continue if the problem is not checked by Commission participation and action early on.

Deployment of xDSL and other advanced services must be based on industry-defined standards and widely accepted deployment guidelines. It cannot thrive on individualized and arcane incumbent LEC-defined guidelines and interpretations of industry standards. The Commission should be proactive in its efforts to ensure that the deployment of advanced services is not delayed or severely limited by incumbent intransigence with respect to spectrum management issues. Given the importance of resolving spectrum compatibility and management issues, new entrants should not be forced to rely on the incumbent LECs' promises of "good faith" compliance with Commission requirements and industry standards and guidelines.

MCI WorldCom firmly believes that the Commission has authority, pursuant to section 256(b) of the 1996 Act,[4] to direct industry bodies such as T1E1 to engage in the process of

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[3] Pacific Bell, for example, has stated that it will accept for deployment in its copper network, any technology that meets the power structural density (PSD) defined in the ADSL standard specification, but refuses to accept one of the modes of operation of the ADSL standard from T1E1.

[4] 47 U.S.C. § 256.

developing spectrum compatibility and management policies, and to compel industry bodies to adhere to any requirement that the Commission establishes for the functioning of such bodies. Section 256 was enacted "to promote nondiscriminatory accessibility by the broadest number of users and vendors of communications products and services to public telecommunications networks used to provide telecommunications service" through coordinated public telecommunications network planning and public telecommunications network interconnectivity, and interconnectivity of devices with such networks used to provide telecommunications service. Section 256 was also intended to "ensure the ability of users and information providers to seamlessly and transparently transmit and receive information between and across telecommunications networks."[5] Therefore, Commission development of policies for spectrum compatibility and management is consistent with the intent of section 256 to promote network interconnectivity for telecommunications carriers, users and information providers.

To further the intent of section 256, the Commission can and should actively participate "in the development by appropriate industry standards-setting organizations of public telecommunications network interconnectivity standards that promote access to . . . public telecommunications networks used to provide telecommunications service."[6] Further, the Commission must further the Act's mandate to establish procedures for Commission oversight of coordinated network planning by telecommunications carriers and other providers of telecommunications service for the effective and efficient interconnection of public

[5] 47 U.S.C. § 256(a)(2).

[6] 47 U.S.C. § 256 (b)(2), and 256 (b)(2)(A).

telecommunications networks used to provide telecommunications service. Section 256 therefore arms the Commission with tools necessary to direct industry bodies in the process of developing spectrum compatibility and management policies. Consistent with this action, the Commission must undertake aggressive and stringent enforcement measures so that the good obtained via industry consensus cannot be obliterated by any unwillingness to comply with industry derived standards.

A. Industry Standards Bodies Can Develop Power Spectral Density Masks

MCI WorldCom agrees that the one existing forum tasked with developing future PSD masks is the T1E1.4.[7] There may be other fora, however, where PSDs will be set, such as in the International Telecommunications Union (ITU),[8] because T1E1/American National Standards Institute has not standardized the full range of xDSL technologies. As a result, MCI WorldCom believes that the ITU's PSDs should be recognized as well as those of T1E1.[9] As indicated above, broader industry representation and participation should be encouraged. In particular, the forum should consist of representatives from the Commission, state commissions, software

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[7] Further Notice, ¶ 81.

[8] T1E1 has recognized PSDs that the ITU has developed, such as standards for ADSL Lite, G.992.2.

[9] International standards for xDSL technologies are important as well. If carriers were restricted to domestic standards for equipment and protocols, there would be too many limitations on permissible technologies. For instance, analog modems, ATM switching protocols, and audio and video compression schemes or protocols are ITU-based and used throughout the country.

providers, incumbent and competitive LECs, manufacturers and equipment vendors.[10]

B. Binder Group Management Should be Addressed by Industry Standards Bodies

PSDs will identify the power characteristics of acceptable xDSL technologies. These standard PSDs also should allow technologies that are not yet standardized but that fall within the PSD of a standard technology, to be deployed into the copper network. However, PSD definition will not resolve the issue of the quantities of different PSD types that can be deployed within a particular binder group. This should be resolved within an industry standard body, such as T1E1 or other industry consortia.

Once the quantity and configuration of a particular PSD type allowed in a binder is defined, xDSL deployment should occur in a manner designed to maximize the available spectrum and copper pairs available for xDSL deployment. MCI WorldCom believes that this can be achieved via random placement of xDSL signals in the available binder groups until such a binder group management specification is developed identifying the spectrum and copper pair optimization rules.

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[10] This would be consistent with the industry representation in the North American Numbering Council and the National Exchange Carrier Association's independent board for the neutral Billing and Collection Agent, which have two representatives from competitive and incumbent LECs, wireless carriers, consumer groups state and international regulatory bodies, and non-domestic carriers. See, e.g., Administration of the North American Numbering Plan, Toll Free Service Access Codes, CC Docket Nos. 92-237 and 95-155, *Third Report and Order and Third Report and Order, FCC 997-372 at* ¶ ¶ 82-84 (rel. Occt. 9, 1997); see also, Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Report and Order*, at ¶ ¶ 861-862 (rel. May 8, 1997).

C. xDSL Technologies Should Not Be Segregated, Except for AMI T1

MCI WorldCom opposes the segregation of xDSL technologies by individual technology.[11] Only the current practice of categorizing AMI T1's in separate binder groups should be permitted. xDSL technologies should be placed in the available copper plant in a "quasi-random" manner. Specifically, copper pairs should be allocated randomly for xDSL but should be monitored to determine where there is no spectrum availability. Where a carrier can demonstrate that none is available, binder or cable should be capped. In addition, measures to increase spectrum availability should be considered and implemented. Notwithstanding AMI T1's, segregation of other xDSL technologies should not be permitted. To the extent that it is permitted, the incumbent LECs must not be allowed to engage in and implement unilateral segregation policies. Such segregation should be nondiscriminatory and not technology-specific.

D. Existing Interfering Technologies Should Be Phased Out in Three to Five Years

The Commission should establish a grandfathering process for older or existing interfering technologies.[12] Technologies that cause interference should be grandfathered for a limited period of time. Some technologies like voice band modems cause little interference, while others, such as AMI T1, cause such significant interference that they must be specially handled. For some time, MCI WorldCom has attempted to get incumbent LECs to address these older, "noisier" technologies that can interfere with deployment of advanced services. MCI

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[11] Further Notice, ¶ 86.

[12] Id., ¶ 87. Any new technologies that are introduced into the network must be compatible with other technologies, regardless of their standardization.

WorldCom recognizes, however, that some carriers have a substantial base of AMI T1 in deployment and that AMI T1 is sometimes the only feasible high-speed transmission capability in certain areas. We nevertheless believe that carriers should be required to replace AMI T1 with new technologies that create less interference. Carriers should be required to phase-out existing or old interfering technologies, a list of which can be developed for notice and comment, in three years for metropolitan areas, and five years for rural areas.

II. THE COMMISSION SHOULD DESIGNATE INDUSTRY GROUPS AND A NEUTRAL THIRD PARTY ADMINISTRATOR

Consistent with its section 256 authority, for spectrum compatibility and management, the Commission should require the establishment of three standards bodies: one for technical standards, another for general administration and management of Commission policies, and one for dispute resolution. MCI WorldCom, therefore, supports the use of a neutral third party administrator with the ability to serve multiple functions with significant Commission participation and oversight, not just with developing loop spectrum management policies.[13] With the deployment of advanced services, such an administrator will be critical to ensuring that spectrum use is managed across the telecommunications sector to deter and prevent discriminatory practices by any party. It could serve as a forum for managing spectrum allocation and use, and loop assignment while monitoring ongoing standards bodies efforts.

A. Disputes Should Be Resolved by the Neutral Third Party Administrator

A neutral third-party administrator should resolve disputes regarding the existence of

[13] Further Notice, ¶ 89.

disturbers in shared facilities.[14] The industry should implement a mechanism for dispute resolution, and the neutral third-party should administer and enforce the rules under the program. A panel comprised of various industry players could resolve these disputes via an expedited review proceeding. Proposed rules and procedures for the panel, subject to notice and comment by interested parties, could be adopted by this Commission. Prompt and binding resolution will help ensure timely and efficient deployment of technologies and ultimately, advanced services that cannot result from protracted dispute resolution. As such, disputes that arise based on claims that a technology is "significantly degrading" the performance of other services, may be quickly resolved by determining whether the interference renders the subject technology nonfunctional or impaired beyond useful functionality. If such a finding is rendered, the same panel could make decisions with respect to appropriate remedies and damages.

B. Spectrum Management Should Be Handled by a Third Party Administrator

The provision of xDSL and other advanced services by multiple carriers using the same copper plant will raise spectrum management issues which could significantly limit the availability of loops for advanced services. Incumbent LEC dominance in the standards bodies, coupled with their monopoly position in the local market, means that incumbent LECs could effectively shut out other carriers by exhausting the available spectrum in certain binder groups. Interference created by use of higher frequencies can make spectrum a limited resource within individual binder groups. This increases the potential for discrimination by the incumbent LECs.

Importantly, management by a neutral third-party administrator would alleviate barriers

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[14] Id., ¶ 88.

to infrastructure development by competitive LECs. Specifically, the administrator could serve as a central clearinghouse for managing spectrum allocation and use issues. It could also facilitate access to network elements required to provide advanced services, manage loop assignments, provide direction to promote standardization to ensure timely deployment of advanced services, participate in the activities of standards organizations to assess progress and flag emerging problems, and resolve disputes as noted earlier. While technical forums such as T1E1.4 are proficient at addressing technical issues such as standards for advanced services, because of their composition, they simply cannot adequately monitor or manage industry-wide activities.

III. LINE SHARING WOULD PROMOTE COMPETITION IN THE PROVISION OF ADVANCED SERVICES

MCI WorldCom supports the Commission's view that line sharing would facilitate competition for advanced services.[15] Line sharing would ensure that competitors could effectively compete against the incumbent LECs' xDSL services. Specifically, competitive LECs should be able to receive xDSL line sharing as an unbundled network element (UNE) or an interstate access service. This latter clarification is fully consistent with the Commission's recent determination that xDSL is an access service.[16]

Carriers such as MCI WorldCom may be interested in providing voice services on a copper loop with another competitive LEC's data service, or provide data service along with an

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[15] Further Notice, ¶ 96.

[16] GTE Tel. Operating Cos. GTOC Transmittal No. 1148, CC Docket No. 98-79, FCC 98-292, Memorandum Opinion and Order (rel. Oct. 30, 1998).

incumbent LEC's voice service. Some competitive LECs may also want to resell a competitive LEC's data services with the incumbent LEC's voice services. Line sharing would further competitive LECs' entry options, and provide a solution where an additional copper loop is unfeasible or unavailable.

Absent the availability to line share, the ability of competitive DSL providers to compete would be severely limited. Because xDSL is inherently a copper loop-based technology, competitors can only offer DSL services over copper loops, which invariably would be unbundled loops. Not all competitive LECs seek to provide both xDSL and voice services. Currently, competitive LECs seeking to provide data services (or data CLECs) are being denied the ability to provide that service over primary loops used for voice service by the incumbent LECs.[17] Instead, the incumbent LECs are insisting that competitive LECs lease a completely separate loop to the premises in order to provide xDSL service. As a result of this practice, new entrants are significantly disadvantaged. In particular, CLECs choosing to provide only data services are forced to recover all of the costs for an entire unbundled loop solely from their xDSL service charges, which would require them to price their xDSL services at inflated rates. The incumbent LEC's rates for voice service will cover the entire cost of the copper loop, which leaves the charges for xDSL service as additional profit for the incumbent LEC. As a result, incumbent LECs that provide voice services maintain the ability to subsidize their rates for xDSL service by assessing itself an arbitrary charge for only a portion of the line that it uses.

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[17] See, e.g., Petition to Reject, Or to Suspend and Investigate, of Covad Communications Company, Bell Altantic Trans. No. 1138 (filed May 26, 1999).

Consequently, data LECs cannot effectively compete because they cannot offer data services in the same manner or at the same cost points as the incumbents. Cost conscious consumers would clearly choose to subscribe to the incumbent LECs' lower priced data service. In the end, incumbents would continue to monopolize the local market. For this reason, line sharing is the only way in which new entrants would be able to provide xDSL service offerings at competitive prices to ensure that consumers have a choice of providers.

As the Commission noted, line sharing is technically feasible.[18] To the extent that incumbent and competitive LECs deploy compatible DSLAM equipment, no significant technical barriers exist in the loop provisioning and central office configuration between the incumbent LEC's xDSL offering and that of the competitive LEC.

Concerns about technical and operational issues can be resolved by applying the billing, maintenance and customer service issues that are currently applied for other traditional local services. The point of interconnection for xDSL amounts to fixed, pre-wired connections on the main distribution frame near the voice splitter. xDSL service can only be provided by competitors that have collocated DSLAMs in the incumbent LEC's central office. As such, those collocators would already have made arrangements for billing and operations support with the incumbent LEC, so new billing and ordering systems need not be re-invented. Moreover, the local loop will continue to be leased from the incumbent LEC, so it remains responsible for the physical copper -- regardless of the signals from different carriers.

Any rules implemented for allocating the costs of line sharing should be

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[18] Further Notice, ¶ 97.

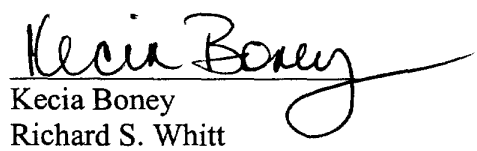
nondiscriminatory in their application. Incumbent LECs must allocate costs for competitors in a manner consistent with the method incumbent LECs use in allocating costs to themselves. Thus, for example, If the incumbent LEC's loop costs are zero, the competitive LEC's loop costs must be zero as well.

CONCLUSION

For the foregoing reasons, MCI WorldCom urges the Commission to adopt its procompetitive tentative conclusions, which would facilitate competition in the provision of advanced telecommunications services.

Respectfully submitted,

MCI WORLDCOM, INC.



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CERTIFICATE OF SERVICE

I, Lonzena Rogers, do hereby certify, that on this fifteenth day of June, 1999, I caused by First Class United States Postal Service a true copy of the foregoing Comments to be served upon the following:

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